

ICS 27.040
CCS K 56



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 45852-2025

**Gas turbine exhaust systems
(English Translation)**

Issued on: August 1, 2025

Implemented on: February 1, 2026

**Issued by: State Administration for Market Regulation, Standardization
Administration of China**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is equivalent to ISO 21905:2020 "Gas turbine exhaust systems with or without waste heat recovery devices".

The following minimal editorial changes have been made to this document.

--- The original standard data sheet is merged into this document as informative Appendix E.

Introduction

This document is prepared based on the requirements of domestic and international markets for gas turbine exhaust and waste heat recovery system specifications.

Turbulence and mechanical design complexity, this document is helpful for buyers and suppliers to purchase, design and manufacture equipment.

Remote, complex and harsh environments on land or at sea may result in excessively high maintenance and repair costs.

The exhaust heat recovery device recovers heat energy from the exhaust gas turbine and transfers the waste heat to various heat transfer media such as water, water/acetylene Glycol mixtures, thermal oils and hydrocarbon gases.

Gas turbine exhaust is one of the various waste heat energy sources. Its typical temperature range is 400°C~600°C and can be classified as medium grade.

The application of exhaust heat recovery device can significantly improve thermal efficiency, reduce carbon dioxide emissions and improve environmental benefits.

Gas turbine exhaust system

1 Scope

This document provides information on the design, materials, this document is applicable to gas turbines for both land and sea use.

Used in oil and gas, chemical industry, utilities or other high energy consuming industries.

The exhaust system in this document refers to all equipment between the outlet flange of the gas turbine exhaust diffuser and the atmosphere.

This document does not include the following equipment.

- Waste heat recovery boiler equipment (HRSG);
- Supplementary combustion system;
- Auxiliary combustion system;
- Exhaust diffuser section (also called exhaust chamber);
- Fire detection and extinguishing systems;
- Emission control equipment that affects exhaust composition;
- Fire tube waste heat recovery device, that is, a device in which turbine exhaust gas (TEG) passes through a fire tube.